

Farmers' Perceptions of Financial Losses and Benefits from Wildlife

by

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Summary: Findings from our recent survey indicate Ohio farmers believe several wildlife species, but mainly deer, cause financial losses to their farming operations, however most perceive the benefits of wildlife to outweigh these losses. Farm financial losses from wildlife are concentrated in the unglaciated region of the state and among fruit, Christmas tree, vegetable, and nursery producers.

There are substantial conflicts between agriculture and wildlife. To farmers, this conflict is most apparent when they observe animal wildlife feeding on and trampling crops, as they repair structures damaged by wildlife, or when they try to control wildlife populations. However, most farmers also appreciate wildlife as a source of pleasure or consider it to be a resource.

We surveyed a representative sample of Ohio farmers to assess their perceptions of the financial losses and benefits from animal wildlife. Nearly 4,000 Ohio farmers were contacted by mail and telephone and asked to assess the impacts of wildlife populations on their farming operations. Those farmers contacted were extremely cooperative with 83% of them providing information.

Farmer estimated financial losses from animal wildlife average about \$650 per farm in 1995. Financial losses include both

reduced farm receipts (e.g., yield and quality losses) and increased costs (e.g., devices to scare away wildlife and repair expenses for damaged structures). The estimated annual financial loss to all Ohio farmers is \$46.4 million. To put these estimates in better perspective, annual losses from animal wildlife for the average farm are about \$3 per acre or 1% of gross cash receipts.

Financial losses from wildlife vary considerably by geographic region, as depicted in the attached maps. In the unglaciated region of the state where farm production is the least and animal wildlife populations are the most dense, financial losses are relatively high. For example, in Harrison County, wildlife damage is estimated to be nearly 8% of gross cash receipts from farming. In Guernsey, Hocking, Jefferson, Morgan, Muskingum, Perry, and Richland Counties, the estimated damage is 4-6% of gross cash receipts. On the other hand, in the western region of the state where grain crops dominate, estimated damage generally is less than 1% of cash receipts.

Financial losses also vary by type of farm (Table 1). Fruit growers and Christmas tree growers estimated their losses to be about 11% and 6% of cash receipts, respectively. Losses on crop and livestock farms are

estimated to be less than 1% of cash receipts.

Survey respondents attribute nearly half of all farm financial losses from wildlife to deer (Table 2). Regardless of the type of farm, deer are thought to cause the most losses. Ground hogs and raccoons also are thought to be responsible for substantial damage. In addition to these species, birds were blamed for sizable losses by fruit and vegetable growers, and rabbits by nursery and Christmas tree growers.

Farmers' perceptions are that financial losses due to wildlife have increased over the past five years. When asked the question, "which best describes the trend you have seen in farm financial losses due to wildlife?" 52% of the respondents reported an increase, 38% reported no change, and only 4% reported a decrease.

While most farmers recognize that wildlife cause financial losses, they generally perceive benefits of wildlife to outweigh their costs. Farmers in the survey were asked the following. "Consider the effects of wildlife on your farming operation. On balance, which one of the following would best summarize your attitude concerning wildlife?" Possible choices and responses were (a) a pest, 33.8%; (b) a source of pleasure, 42.3%; (c) a resource, 13%; and (d) unimportant, 10.9%. Undoubtedly, those thinking of wildlife as a pest are those with the largest financial losses. However, even among the group of farmers incurring financial losses from wildlife, the majority perceive wildlife to be, on balance, a source of pleasure or a resource rather than a pest. In fact, 35% of the respondents report that they voluntarily do things to promote

wildlife populations, such as leaving cover or unharvested crops.

A small proportion (1%) of farmers receive revenue by charging hunting fees, and 6% have considered wildlife as a potential source of revenue. However, most are concerned that charging hunting fees would increase their liability for hunter accidents.

This study suggests that most farmers incur modest financial losses from wildlife and view wildlife as a resource or source of pleasure rather than a pest. However, some farmers bear substantial losses, and view wildlife as a pest and, in some cases, a threat to their business survival. Losses attributed to wildlife are concentrated geographically in the southeastern part of the state and among fruit, Christmas tree, vegetable, and nursery growers.

This analysis presents only a small part of the economic issues related to wildlife. For example, hunters and others enjoy recreational benefits from farm-based wildlife. Could farmers' financial losses be reduced if they controlled wildlife populations by providing more access to hunters? How large are recreational benefits relative to farmers' losses? Would farmers attitudes be even more positive toward wildlife if those enjoying benefits from wildlife compensated farmers for their losses? Would these economic incentives cause farmers to enhance wildlife habitat and possibly result in even larger wildlife populations? If liability laws were changed would more farmers view wildlife as a potential revenue source and actively manage wildlife populations?

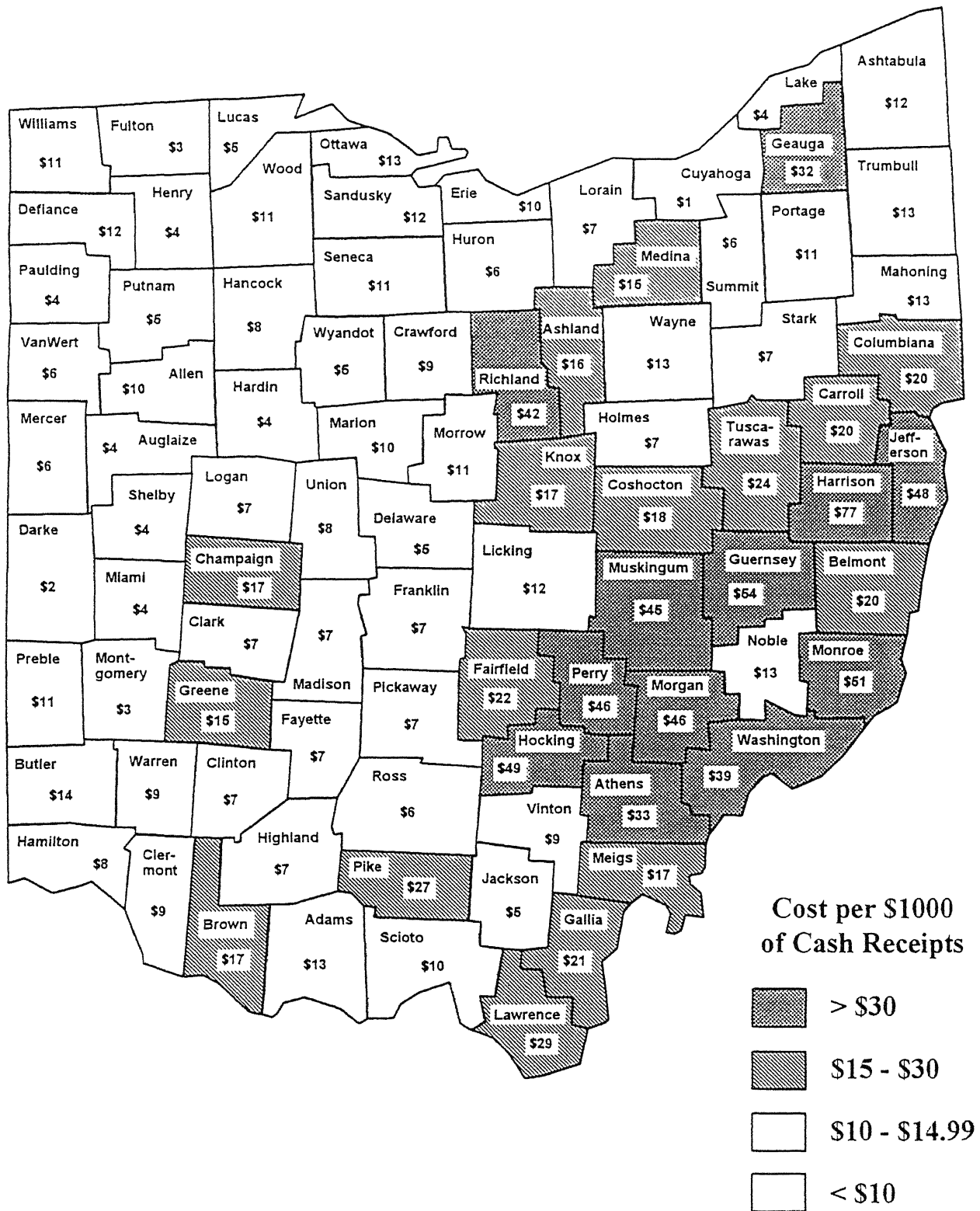
Table 1. Financial Losses from Wildlife by Type of Farm, 1995

Types of Farm	Financial Losses	
	% of Cash Receipts	Total (\$000)
Fruit	10.8	3,028
Crop and livestock	0.8	32,168
Nursery	1.2	5,929
Vegetable	2.9	4,315
Christmas tree	6.4	964
All farms	1.0	46,404

Table 2. Percent of Losses Attributed to Various Wildlife Species, By Farm Type

Wildlife Species	Type of Farm					
	Fruit	Crop and Livestock	Nursery	Vegetable	Christmas	All Farms
Deer	43.9	48.6	57.7	44.5	71.6	49.6
Wild turkey	0.5	3.8	0.1	8.0	0.0	3.4
Geese	1.7	2.6	0.3	2.9	0.0	2.2
Other birds	16.1	4.4	3.4	10.7	3.9	5.6
Coyote	0.0	2.5	0.0	1.4	0.0	1.8
Rabbits	8.2	0.8	11.8	3.2	13.3	3.2
Muskrats	0.1	1.6	0.4	1.1	1.0	1.3
Racoons	12.8	13.4	7.2	11.4	1.0	12.1
Ground hogs	8.7	19.1	11.0	14.3	5.5	16.7
Mice and other rodents	7.7	1.6	7.2	2.3	3.7	2.8
Other	0.5	1.6	0.9	0.2	0.1	1.3
	100.0	100.0	100.0	100.0	100.1	100.0

Farm Wildlife Damage by County, Cost per \$1000 of Cash Receipts



Cost per Acre in Farms

- > \$6
- \$4 - \$5.99
- \$2 - \$3.99
- < \$2

County	Cost per Acre
Ashtabula	\$3.06
Lake	\$20.03
Geauga	\$10.75
Trumbull	\$3.23
Cuyahoga	\$2.80
Portage	\$3.38
Mahoning	\$4.67
Columbiana	\$5.67
Carroll	\$3.60
Jefferson	\$4.97
Harrison	\$6.66
Belmont	\$2.03
Monroe	\$4.59
Washington	\$4.90
Athens	\$3.37
Meigs	\$2.37
Gallia	\$2.39
Lawrence	\$3.05
Scioto	\$2.09
Adams	\$1.81
Brown	\$3.33
Clermont	\$1.84
Highland	\$1.42
Fayette	\$2.06
Madison	\$2.06
Pickaway	\$1.87
Ross	\$0.92
Pike	\$2.85
Jackson	\$1.13
Vinton	\$0.51
Hocking	\$4.75
Fairfield	\$5.89
Perry	\$6.30
Morgan	\$3.85
Noble	\$0.57
Guernsey	\$4.04
Muskingum	\$6.27
Licking	\$4.81
Delaware	\$1.67
Franklin	\$3.12
Union	\$2.82
Logan	\$1.73
Shelby	\$1.16
Champaign	\$4.62
Clark	\$3.01
Greene	\$4.46
Montgomery	\$1.21
Preble	\$3.39
Butler	\$3.76
Warren	\$3.35
Clinton	\$2.03
Hamilton	\$4.48
Auglaize	\$1.47
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